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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/693,679	10/19/2000	Paul Fulton	2741.US.P	7209
56436	7590	03/27/2006	EXAMINER	
3COM CORPORATION 350 CAMPUS DRIVE MARLBOROUGH, MA 01752-3064			WARE, CICELY Q	
			ART UNIT	PAPER NUMBER
			2611	

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/693,679		FULTON, PAUL	
	Examiner		Art Unit	
	Cicely Ware		2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see **Remarks**, filed 3/6/2006 with respect to the rejection(s) of claim(s) 1-10 and 21-30 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Sward et al. (US Patent 6,545,643)

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-30 rejected under 35 U.S.C. 103(a) as being unpatentable over Matsukane et al. (US Patent 5,467,341) in view of Sward et al. (US Patent 6,545,643).

(1) With regard to claim 1, Matsukane et al. discloses in a method indicating reception performance of a wireless signal at a radio frequency peripheral component card of a computer system said method comprising: receiving said wireless signal at a wireless receiver said radio frequency peripheral component card; demodulating said wireless signal; determining an error rate of a digital data portion of said wireless signal; and indicating a quality level of reception of said wireless signal at said electronic device

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based on said error rate (abstract, col. 1, lines 7-10, 13-47, 53-59, col. 5, lines 40-47, 54-57, col. 6, lines 55-65, col. 8, lines 23-36, col. 10, lines 22-26, col. 12, lines 26-35,).

However Matsukane et al. does not disclose indicating a quality level of reception of said wireless signal at said radio frequency peripheral component card based on said error rate using an indicator component of said radio frequency peripheral component card.

However Sward et al. discloses a retractable antenna PC card in (Figs. 3, 4A, 4B, 7A, 7B) comprising indicating a quality level of reception of said wireless signal at said radio frequency peripheral component card based on said error rate using an indicator component of said radio frequency peripheral component card (abstract, col. 1, lines 55-67 – col. 2, lines 1-2, 15-20, 39-49, col. 5, lines 12-19, 65-67 – col. 6, lines 1-5, col. 13, lines 37-67 – col. 14, lines 1-16).

Therefore it would have been obvious to one of ordinary skill in the art to modify Matsukane et al. to incorporate indicating a quality level of reception of said wireless signal at said radio frequency peripheral component card based on said error rate using an indicator component of said radio frequency peripheral component card in order to obtain better coverage, mechanical reliability and aesthetics, eliminate blockage of a single antenna due to intervening objects or multipath problems and increase stability and robustness (Sward et al., col. 4, lines 26-37).

(2) With regard to claim 2, claim 2 inherits all the limitations of claim 1.

Matsukane et al. further discloses wherein said quality level of reception is indicated via

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a light-emitting device (col. 6, lines 21-30, col. 7, lines 40-42, col. 8, lines 59-67, col. 9, lines 1-8).

(3) With regard to claim 3, claim 3 inherits all the limitations of claim 1.

Matsukane et al. further discloses the step of linearly translating said error rate into said quality level to notify of the favorable reception state by the luminescence (display)(col. 4, lines 19-21, col. 8, col. 8, lines 59-67, col. 9, lines 1-8).

(4) With regard to claim 4, claim 4 inherits all the limitations of claim 1.

Matsukane et al. further discloses wherein said error rate is a packet error rate to notify of the favorable reception state (abstract, col. 3, lines 32-35)

(5) With regard to claim 5, claim 5 inherits all the limitations of claim 4.

Matsukane et al. further discloses wherein the packet error rate is determined by a cyclic redundancy code (CRC) algorithm (abstract, col. 3, lines 32-38, col. 10, lines 4-5).

(6) With regard to claim 6, claim 6 inherits all the limitations of claim 4.

Matsukane et al. further discloses wherein the packet error rate is determined by a forward error correction algorithm to enable two-way error free transfer of data (col. 3, lines 32-35).

(7) With regard to claim 7, claim 7 inherits all the limitations of claim 1.

Furthermore, Matsukane et al. further discloses wherein said quality level is linearly proportional to said error rate of said wireless signal (col. 6, lines 25-27, col. 9, lines 2-8).

(8) With regard to claim 8, claim 8 inherits all the limitations of claim 1.

Furthermore, Matsukane et al. further discloses the step of adaptively updating said

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step(c of determining said error rate and said step d) of indicating said quality level (col. 9, lines 21-41).

(9) With regard to claim 9, claim 9 inherits all the limitations of claim 1.

Furthermore, Matsukane et al. further discloses in the steps of recording a history of said quality level with respect to another variable; identifying a maximum quality level; and indicating when said quality is at said maximum level (col. 8, lines 59-65, col. 9, lines 1-20).

(10) With regard to claim 10, claim 10 inherits all the limitations of claim 1.

Furthermore, Matsukane et al. discloses in the steps of providing feedback to control reception, said feedback relate to said quality level of reception; and adjusting said reception based on said feedback, thereby improving said quality level of said reception (col. 7, lines 17-26, col. 9, lines 9-10).

(11) With regard to claim 11, see rejection of claim 1. Matsukane et al. further discloses the radio frequency peripheral component card comprising: a receiver; a processor, said processor coupled to said receiver; and a computer readable memory unit, said computer readable memory unit coupled to said processor, said computer readable memory unit containing program instructions stored therein that cause the processor to determine an error rate of a digital data portion of a received and demodulated wireless signal (col. 10, lines 9-51).

(12) With regard to claim 12, claim 12 inherits all the limitations of claims 11 and 2 above.

(13) With regard to claim 13, claim 13 inherits all the limitations of claims 11 and 3 above.

(14) With regard to claim 14, claim 14 inherits all the limitations of claims 11 and 4. Matsukane further discloses the radio frequency peripheral component card (abstract, col. 1, lines 32-47, col. 3, lines 32-35, col. 10, lines 22-26)

(15) With regard to claim 15, claim 15 inherits all the limitations of claims 11 and 5. Matsukane et al. further discloses the radio frequency peripheral component card (abstract, col. 1, lines 32-47, col. 3, lines 32-38, col. 10, lines 22-26).

(16) With regard to claim 16, claim 16 inherits all the limitations of claims 11 and 6. Matsukane et al. further discloses the radio frequency peripheral component card (col. 1, lines 32-47, col. 3, lines 32-35, col. 10, lines 22-26).

(17) With regard to claim 17, claim 17 inherits all the limitations of claims 11 and 7 above.

(18) With regard to claim 18, claim 18 inherits all the limitations of claims 11 and 8 above.

(19) With regard to claim 19, claim 19 inherits all the limitations of claims 11 and 9 above.

(20) With regard to claim 20, claim 20 inherits all the limitations of claims 11 and 10 above.

(21) With regard to claim 21, see rejection of claim 1. Matsukane et al. further discloses a computer readable medium containing therein computer readable codes for causing a radio frequency peripheral component card of a computer system to

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implement a method of managing multipath signals to increase the degree of mobility and increase the area of communication coverage (col. 1, lines 61-67, col. 2, lines 1-30, 66-67, col. 3, lines 1-4, col. 10, lines 18-29).

(22) With regard to claim 22, claim 22 inherits all the limitations of claim 21.

Matsukane et al. further discloses wherein said quality level of reception is indicated via a light-emitting device (col. 6, lines 21-30, col. 7, lines 40-42, col. 8, lines 59-67, col. 9, lines 1-8).

(23) With regard to claim 23, claim 23 inherits all the limitations of claim 21.

Matsukane et al. further discloses the step of linearly translating said error rate into said quality level to notify of the favorable reception state by the luminescence (display)(col. 4, lines 19-21, col. 8, col. 8, lines 59-67, col. 9, lines 1-8).

(24) With regard to claim 24, claim 24 inherits all the limitations of claim 21.

Matsukane et al. further discloses wherein said error rate is a packet error rate (abstract, col. 3, lines 32-35).

(25) With regard to claim 25, claim 25 inherits all the limitations of claim 24.

Matsukane et al. further discloses wherein the packet error rate is determined by a cyclic redundancy code (CRC) algorithm (abstract, col. 3, lines 32-38).

(26) With regard to claim 26, claim 26 inherits all the limitations of claim 24.

Matsukane et al. further discloses wherein the packet error rate is determined by a forward error correction algorithm (col. 3, lines 32-35).

(27) With regard to claim 27, claim 27 inherits all the limitations of claim 21.

Furthermore, Matsukane et al. further discloses wherein said quality level is linearly

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proportional to said error rate of said wireless signal (col. 6, lines 25-27, col. 9, lines 2-8).

(28) With regard to claim 28, claim 28 inherits all the limitations of claim 21.

Furthermore, Matsukane et al. further discloses the step of adaptively updating said of determining said error rate and said step of indicating said quality level (col. 9, lines 21-41).

(29) With regard to claim 29, claim 29 inherits all the limitations of claim 21.

Furthermore, Matsukane et al. further discloses in the steps of recording a history of said quality level with respect to another variable; identifying a maximum quality level; and indicating when said quality is at said maximum level (col. 8, lines 59-65, col. 9, lines 1-20).

(30) With regard to claim 30, claim 30 inherits all the limitations of claim 21.

Furthermore, Matsukane et al. discloses in the steps of providing feedback to control reception, said feedback relate to said quality level of reception; and adjusting said reception based on said feedback, thereby improving said quality level of said reception (col. 7, lines 17-26, col. 9, lines 9-10).

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cicely Ware whose telephone number is 571-272-3047. The examiner can normally be reached on Monday – Friday, 8-5.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-3988. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Cicely Ware

cqw
March 21, 2006


KHAI TRAN
PRIMARY EXAMINER